This presentation premiered at WaterSmart Innovations

watersmartinnovations.com
The Everyday Value of Household Data

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Overall Water Use: Average per Household
October 2018 – October 2019

43,696 gallons per year
The Value of Categorization

- Shower: 14,505.5 gallons
- Sink: 8,764.7 gallons
- Toilet: 6,813.9 gallons
- Washing Machine: 3,424.8 gallons
- Bath: 1,966.4 gallons
- Dishwasher: 1,176.2 gallons
- Water Filter: 902.3 gallons
- Water Softener: 768.6 gallons
- Pool/Hot Tub: 13,414.7 gallons
- Sprinkler: 6,725.8 gallons
- Drip Irrigation: 2,658.4 gallons
- Garden Hose: 2,076.1 gallons
- Leak: 1,778.5 gallons
- Miscellaneous: 488.3 gallons
Washing Machine Use: Average per Household
October 2018 – October 2019

3,425 gallons per year
= 65 gallons per week
Washing Machines: Traditional Efficiency

1990s Washer
40+ gallons per use

Current Top Load Washer
15-20 gallons per use

Modern Energy Star HE
<10 gallons per use
Washing Machine Performance Over Time

Clothes washers: average tub volume and energy use from 1987-2014

Source: Association of Home Appliance Manufacturers.
How does a consumer choose?

• Manufacturers make offerings confusing: Is it Energy Star, HE, CEE Tier 1, Tier 2, etc.?

• Standards organizations try to simplify but end up creating confusion.

• The average consumer doesn't know what a Water Factor is, what an IMEF is, and doesn't want to do the math to understand washing machine efficiency.
And what does that really mean?

• Does buying the most efficient model make sense for everyone?

• Would buying a high efficiency dishwasher really pay off the initial expense?

• The smartest choice for each consumer depends on their load size, frequency of use, water prices, energy prices, etc.
Real-World Washer Use: 1 year
“One Load Wonder”

One Load Wonder

530 gallons per year
Real-World Washer Use: 1 year
“Cozy Couple”

Cozy Couple

6420 gallons per year
Real-World Washer Use
“Weekend Warrior”

Weekend Warrior 6810 gallons per year
Real-World Washer Use
“Daily Doer”

Daily Doer

4970 gallons per year
Washer Usage Analysis: Conclusions from Real-World Samples

How a washer is used, both in frequency and in cycle type, has a far greater impact on net savings and payback period – and now we can show real comparisons. **Personalized information drives behavioral change.**

*Individualized data promotes informed decisions* (i.e., if you had model X from Whirlpool you would have consumed X gallons vs. yours today)

*Accurate information benefits all parties:* the individual who saves, the vendor whose price is more easily justified and the planet for saving resources more effectively.
Is Leak Detection Actually Important?

Detecting and recognizing leaks or unintended water usage is of vital importance to a homeowner and to an insurance company.

But:

• Leaks don't happen every day.
• Water usage can tell a homeowner a lot about their home.
• If you don’t know what "normal" is for your home, you don't know if you have a problem when you see unusual water bills or water usage.
Water Loss due to Leakage = Annual Washer Use

Equals 3758 gallons of water lost